

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number  
WO 2004/057031 A2

- (51) International Patent Classification<sup>7</sup>: C12Q 1/68 (74) Agents: BREESE, Pierre et al.; 3, avenue de l'Opéra, F-75001 Paris (FR).
- (21) International Application Number: PCT/IB2003/006419 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 19 December 2003 (19.12.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 02293199.2 20 December 2002 (20.12.2002) EP (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except US*): CLIN-IGENETICS [FR/FR]; 1105, avenue Pierre Mendes France, F-3000 Nîmes (FR).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): MARGUERIE, Gérard [FR/FR]; 68, rue du Génie, F-94400 Vitry-sur-Seine (FR). BENHABILES, Nora [FR/FR]; 61, boulevard de Sébastopol, F-75001 Paris (FR).

## Published:

— without international search report<sup>5</sup> and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND COMPOSITION FOR IDENTIFYING THERAPEUTIC AGENTS OF ATHEROSCLEROTIC PLAQUE LESIONS

(57) Abstract: The present invention relates to a method for identifying therapeutic agents for reducing and monitoring the growth, erosion, rupture or stability of an atherosclerotic plaque comprising the analysis of the differential expression of at least two genes coding proteins chosen among Stearoyl CoA desaturase, Phosphatidic acid phosphate, and Phosphoinositide-specific-phospholipase-B1, eventually in association with the analysis of the differential expression of at least one gene coding a protein chosen in the group comprising Aldose reductase and aldehyde reductase, Sphingomyelinase, Acid ceramidase, Ceramide glucosyl transferase, Sphingosin phosphate liase, Thymosine beta 4, Aldehyde dehydrogenase, ATPase Ca<sup>++</sup> binding protein and CD163.